

Date: Mon, 25 Apr 94 04:30:29 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #110
To: Ham-Homebrew

Ham-Homebrew Digest Mon, 25 Apr 94 Volume 94 : Issue 110

Today's Topics:

40 meter CW transceiver project?
 PSK Modem
 QRP neswwsgroup (2 msgs)
 R2 T2 pcb source wanted
 TI 320C26 DSP Eval Kit
 TUBE WANTED: CK-1905

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 24 Apr 1994 13:59:04 -0400
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!news.ans.net!
hp81.prod.aol.net!search01.news.aol.com!not-for-mail@network.ucsd.edu
Subject: 40 meter CW transceiver project?
To: ham-homebrew@ucsd.edu

In article <1994Apr22.122214.62719@kuhub.cc.ukans.edu>,
mmarmor@kuhub.cc.ukans.edu writes:

>Can anyone recommend a good "builder in training" 40 meter CW
>transceiver design? Will I be unhappy with the performance of
>this type of no frills rig? (It won't be any fun if I can't make
>a few contacts using it!)

I can only address what little experience I've had--starting with QRP. Try a simple design using a crystal for the frequency generation, rather than a VFO (to keep it simple). Shoot for 1-2 watts output. Once you're happy with that (and you will make contacts with it), you might try converting the oscillator to a VXO and adding some more power with a PA up to say, 3-5 watts. I've taken this approach and been quite surprised with the contacts I've made, especially on 30 and 40 meters.

Let me know how you fare!

73 de JimN00CT

ENTROPY AINT WHAT IT USED TO BE!

Date: 25 Apr 94 18:41:24 NZST
From: waikato!comp.vuw.ac.nz!newshost.wcc.govt.nz!kosmos.wcc.govt.nz!
parnell_j@decwrl.dec.com
Subject: PSK Modem
To: ham-homebrew@ucsd.edu

I would like to revisit the thread on how to do PSK demodulation that was running on this newsgroup a month ago.

EXAR XR-2123 is a PSK modulator/demodulator IC which was designed for Bell Standards 201, 212A or CCITT Standard V.22 (1200 Baud), or V.26 (2400 Baud) modems. The information in the EXAR data book about this IC explains in detail how the demodulation is achieved. Both carrier and data recovery are well explained. In addition, a typical modem circuit using the XR-2123 and other ancillary EXAR ICs is given.

Anyone wanting to learn how PSK demodulation is carried out would find the EXAR databook of great value.

Motorola make a pair of ICs, the MC 6172 and MC 6173 which also modulate and demodulate PSK signals. Application Note AN 870 covers the use of these ICs and presumably describes their operation but as I have not seen a copy of the note, I cannot comment further.

These days of course, modem speeds for most purposes are very much higher than 2400 Baud and the signal modulation/demodulation is achieved by digital signal processing. The EXAR and Motorola ICs described above are therefore effectively obsolete.

I wish to make a 2400 Baud modem card which will fit inside the my TNC-2 work-alike Packet Controller and connect to its expansion header. This will allow me to use the V.26 protocol port instead of the 1200 Baud FSK port on the local bulletin board.

Why is there a V.26 port you ask? Well, a number of commercial modems of this protocol became available, were snapped up by the local hams, adapted for packet radio use and put into service.

Question 1: Are the EXAR XR-2123 or Motorola MC 6172 and MC 6173 ICs available now from any source. If so, can someone please advise the source and cost on a one-off basis. They are unobtainable in this part of the world.

Question 2: Is there a DSP design (in either kitset or constructional information plus software form) available for me to build. If so, I would like to know the source and cost.

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.....
! Jim Parnell ZL2APE                                     !
! ZL2APE@ZL2WA.#60.WLG.NZL.OC                           87 Duncan Tce   !
!                                                         Kilbirnie     !
!                                                         Wellington  !
! National Organiser for the                             NEW ZEALAND.  !
! Jamboree on the Air in New Zealand.                   !
!.....!
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Date: Sat, 23 Apr 1994 10:38:39 GMT
From: pacbell.com!amdahl!netcomsv!netcom.com!equis@ames.arp
Subject: QRP neswwsgroup
To: ham-homebrew@ucsd.edu

hi brien: Yeah, I really thought, naively, that "homebrew" corresponded to actual beer. I know I'm just vaguely anonymous but I subscribed to this news group out of an interest in the art of properly fermented yeast. I'm trying to find the connection to amateur radio. Please help.

Brien Pepperdine (pepperb@govonca.gov.on.ca) wrote:

: Oh please, I think, I suspect, I know for sure (I believe) that there is
: QRP usenet/newsgroup for radi amateur qrp interests and building. Could
: anyone tell me what the rec. or whatever group is called (i.e.
: rec.radio.amateur.low-power ?) I am new, and my key word searches are not

: quite so great.
: Thanks. Any info as to where to hang out for such things would be
: appreciated. I figured the homebrew area would know about such a closely
: associated thing as qrp.
: 73 de VE3VAW

Date: 24 Apr 1994 14:00:06 -0400
From: ihnp4.ucsd.edu!usc!math.ohio-state.edu!howland.reston.ans.net!
europa.eng.gtefsd.com!news.ans.net!hp81.prod.aol.net!search01.news.aol.com!not-
for-mail@network.ucsd.edu
Subject: QRP neswwwsgroup
To: ham-homebrew@ucsd.edu

Actually, you might combine both: homebrew and homebrew radio! I've tried it
and it seems to work well--not at all like those Miller commercials might
suggest.

73 de JimN00CT

ENTROPY AINT WHAT IT USED TO BE!

Date: Mon, 25 Apr 1994 05:27:12 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
mont@network.ucsd.edu
Subject: R2 T2 pcb source wanted
To: ham-homebrew@ucsd.edu

In article <2oojok\$226@search01.news.aol.com>,
JimN00CT <jimn0oct@aol.com> wrote:
>In article <1994Apr14.132347.26126@news.mentorg.com>, jbate@rtp-nc.mentorg.com
>(John Bate) writes:
>
>>I'm trying to find a source for the R2 and T2 pcb as
>
>From reading similar threads and hearing the experience of some local hams, you
>might try calling him. I was just about to make out a check for the R2 board
>myself (sourced all of the parts already). That is the direction I'm going to
>pursue.

Well, I ordered some boards from Applied Radio Science in Dec. 1993. I
just received the order with \$5 refund on shipping. Funny thing is, the
return address on the envelope is:

Campbell
Rt 1 Box 195
Chassell, MI 49916

The boards are very well made and I'm glad to get them.

73,

--

Mont Pierce

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+-----+
| Ham Call: KM6WT           Internet:  mont@netcom.com      |
|   bands: 80/40/20/15/10/2 |                             |
|   modes: cw,ssb,fm        |                             |
+-----+
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Date: 21 Apr 1994 22:21:08 -0700
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!math.ohio-state.edu!
news.acns.nwu.edu!ftpbox!mothost!lego.wes.mot.com!mdisea!mddvan!vanbc.wimsey.com!
vanbc.wimsey.com!not-for-mail@network.ucsd.
Subject: TI 320C26 DSP Eval Kit
To: ham-homebrew@ucsd.edu

I bought the TI C26 DSK last fall. I suggest you look at ftp orst.edu
(don't remember the exact address) or email forrerj@FRL.orst.edu for
his (johann Forrer) port of the W9GR DSP noise reducer/notch to this
unit. Look also for some other dsp modems; some of them with
a [well justified] price attached.

Does it meet my expectations?

Yah. Comes with RCA phono jacks in and out; 16-bit I think a/d and d/a
conv, sample up to 30 or 50 khz; lotsa demo software at ti.com
via ftp or a couple of other sites (one in Australia).

Bought a book - PC-DSP. Best 30 bucks I've spent in a while - it's
been superceded I think, probably even better - disks with programs
etc to design FIR, IIR and other goodies. Makes coefficients that
can be loaded into the DSK via it's D9 RS232 port. [I forgot to
mention that, didn't I...]

Then again, I'm just a learner. Check Arrow, other TI distribs. They
were short of stock a few months back. Great bargain.

There's a rumored C51 versio, but it keeps getting delayed.

Cheers / Mark

Date: Sun, 24 Apr 1994 22:57:42 -0800
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.intercon.com!panix!
zip.eecs.umich.edu!newsxfer.itd.umich.edu!nntp.cs.ubc.ca!cyber2.cyberstore.ca!
nwnexus!bellevue-ip34.halcyon.com!user@@.
Subject: TUBE WANTED: CK-1905
To: ham-homebrew@ucsd.edu

Does anyone have one or two CK-1905 "nixie" tubes you'd be willing to sell
for \$10 ea or less?

--
James Baker
Seattle, WA
jlbaker@halcyon.com

End of Ham-Homebrew Digest V94 #110
